

WHAT IS CLAIMED IS:

1. A mounting process simulation program of causing a computer to execute a simulation of a mounting process composed of a plurality of steps, the program causing the 5 computer to execute:

a first simulation executing step of executing a simulation based on a first condition selected for a first step;

10 a simulation condition deciding step of deciding a result simulated in the first simulation executing step as a simulation condition for a second step positioned subsequent to the first step; and

15 a second simulation executing step of executing a simulation of the second step based on a second condition containing at least the simulation condition.

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2. A mounting process simulation program according to claim 1, wherein analysis result data simulated previously based on a plurality of conditions are generated every step, and

20 the second simulation executing step executes the simulation of the second step by sampling the analysis result data simulated based on the second condition.

25 3. A mounting process simulation program according to claim 1, wherein analysis result data simulated previously based on a plurality of conditions are generated every step, and

30 the second simulation executing step executes the simulation of the second step by executing an interpolation calculation using the analysis result data simulated based on a preceding or succeeding condition of the second condition.

35 4. A mounting process simulation program according to claim 2 or 3, wherein the analysis result data are generated by other device provided to an outside of the computer, and the second simulation executing step executes the

simulation of the second step by converting the analysis result data generated by other device into a predetermined data format.

5. A mounting process simulation program according to
5 claim 4, wherein at least one of data simulated previously every step by using a CAE tool, mounting resultant data of a mounting equipment provided to a mounting site every step, and experimental data derived by an experiment in which an operation in each step is supposed is selected as the analysis result data.

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6. A mounting process simulation program according to claim 1, further causing the computer to execute an animation displaying step of displaying three-dimensionally an animation to indicate a result simulated in the second simulation executing step on a display device, by reading previously-stored animation elements based on a definition file in which an operation sequence is defined every step.

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7. A mounting process simulation program according to claim 1, wherein the second simulation executing step includes a condition acquiring step of reading a condition selected in response to an input from a condition database in which a plurality of conditions are stored previously in combination, and adding the condition to the second condition.

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8. A mounting process simulation program according to claim 7, wherein the condition acquiring step further reads data from a CAD system in response to the input and adds the data to the second condition.

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9. A mounting process simulation program according to claim 1, wherein the first simulation executing step executes the simulation to contain production variation in the first step,

the simulation condition deciding step decides the result simulated in the first simulation executing step to contain the

production variation as the simulation condition, and
the second simulation executing step executes the
simulation of the second step based on the second condition to
contain the production variation.

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10. A mounting process simulation program according to
claim 1, wherein the first simulation executing step executes
the simulation based on a change of a control item set in the
first step as the first condition,

10 the simulation condition deciding step decides the result
simulated based on the change of the control item in the first
simulation executing step as the simulation condition, and

15 the second simulation executing step executes the
simulation of the second step based on the second condition to
contain the result simulated based on at least the change of
the control item.

11. A mounting process simulation program according to
claim 1, further causing the computer to execute

20 a reliability evaluating step of executing a reliability
evaluation of a product manufactured in the mounting process
by using the result simulated in the second simulation executing
step.

25 12. A mounting process simulation program according to
claim 1, further causing the computer to execute

a fraction defective calculating step of calculating a
fraction defective of a product manufactured in the first step
and the second step, by using results simulated in the first
30 simulation executing step and the second simulation executing
step.

13. A mounting process simulation system provided to
steps of a mounting process composed of a plurality of steps
35 to execute a simulation of the mounting process, comprising:
an inputting portion for inputting a condition to execute

the simulation;

an executing portion for executing the simulation based on the condition input from the inputting portion; and

5 an outputting portion for outputting a result of the simulation executed by the executing portion;

wherein the executing portion includes:

a condition table forming portion forming a condition table that lists a simulation condition, which is formed by using a simulation result simulated based on a first condition
10 selected for at least a first step, of a second step positioned subsequently to a first step, and

15 a simulation result outputting portion executes the simulation of the second step based on the condition table and a condition input from the inputting portion and outputs a result to the outputting portion.

14. A mounting process simulation method of executing a simulation of a mounting process composed of a plurality of steps, comprising:

20 a first simulation executing step of executing a simulation based on a first condition selected for a first step;

25 a simulation condition deciding step of deciding a result simulated in the first simulation executing step as a simulation condition for a second step positioned subsequent to the first step; and

 a second simulation executing step of executing a simulation of the second step based on a second condition containing at least the simulation condition.